Pre-K-2 SCIENCE

Name		Sch	1001	
Town		GradePho	one	
LEAF	RNING RESULTS			0=no link 1=weak link 2=good link 3=strong link
A.	CLASSIFYING LIFE FORMS Students will understand that there are similarities within the diversity of all living things. Students will be able to:			
A1.	Identify the differences between living and non living things.			
A2.	Describe characteristics of different living things.			
A3.	Explain, draw, or otherwise demonstrate the life cycle of an organism.			
A4.	Design and describe a classification system for objects.			
B.	ECOLOGY Students will understand how living things depend on one another and on non-living aspects of the environment. Students will be able to:			
B1.	Identify ways that organisms depend upon their environment.			
B2.	Describe how almost all animals' food can be traced back to plants.			
B3.	Give examples of how one change in a system affects other parts of the system.			
B4.	Describe different ecological systems on earth.			

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B5.	Describe a familiar local environment.		
C.	CELLS Students will understand that cells are the basic units of life. Students will be able to:		
C1.	Demonstrate that living things are made up of different parts.		
C2.	Demonstrate an understanding that plants and animals need food, water, and gases to survive.		
C3.	Explore magnifying devices and how they allow one to see in more detail.		
C4.	Provide examples of causes of diseases.		
D.	CONTINUITY AND CHANGE Students will understand the basis for all life and that all living things change over time. Students will be able to:		
D1.	Explain how fossils show the existence of past life.		
D2.	Identify characteristics that help organisms live in their environment.		
D3.	Draw or describe ways in which an organism can change over its lifetime, sometimes in predictable ways (e.g., butterfly, frog).		

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		MATCH	3=strong link
D4.	Describe ways in which individuals of the same species are alike and different.		
E.	STRUCTURE OF MATTER Students will understand the structure of matter and the changes it can undergo. Students will be able to:		
E1.	Show that large things are made up of smaller pieces.		
E2.	Describe some physical properties of objects.		
E3.	Group objects based on observable characteristics (e.g., color, size, texture).		
F.	THE EARTH Students will gain knowledge about the earth and the processes that change it. Students will be able to:		
F1.	Describe the way weather changes.		
F2.	Analyze the relationships between observable weather patterns and the cycling of the seasons.		
F3.	Observe changes that are caused by water, snow, wind, and ice.		
G.	THE UNIVERSE Students will gain knowledge about the universe and how humans have learned about it, and about the principles upon which it operates. Students will be able to:		

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G1.	Explain the cycles of day/night and of			o onong mm
	seasons.			
G2.	Demonstrate that shadows of objects			
	change based on where light is coming from.			
G3.	Demonstrate an understanding that the sun			
	is one of many stars in the universe and is			
	the closest star to earth.			
Н.	ENERGY			
	Students will understand concepts of			
	energy. Students will be able to:			
	3,			
H1.	Demonstrate an understanding that the sun			
	gives off light and heat energy.			
H2.	Explain why living things need energy.			
1.	MOTION			
١.	Students will understand the motion of			
	objects and how forces can change that			
	motion. Students will be able to:			
	inotion. Students will be able to.			
l1.	Develop a variety of ways to describe the			
	motion of an object.			
10				
12.	Demonstrate that the motion of an object			
	can be changed.			
J.	INQUIRY AND PROBLEM SOLVING		$\longrightarrow$	
0.	Students will apply inquiry and			
	problem-solving approaches in science			
	and technology. Students will be able			
	to:			
	10.			
J1.	Make accurate observations using			
31.	appropriate tools and units of measure.			
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J2.	Ask questions and propose strategies and materials to use in seeking answers to questions.		
J3.	Use results in a purposeful way, which includes making predictions based on patterns they have observed.		
J4.	Identify products which were invented to solve a problem.		
K.	SCIENTIFIC REASONING Students will learn to formulate and justify ideas and to make informed decisions. Students will be able to:		
K1.	Examine strengths and weaknesses of simple arguments.		
K2.	Distinguish between important and unimportant information in simple arguments.		
K3.	Make observations.		
K4.	Participate in brainstorming activities.		
K5.	Use various forms of simple logic.		
K6.	Discover relationships and patterns.		

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L.	COMMUNICATION Students will communicate effectively in the application of science and technology. Students will be able to:		
L1.	Describe and compare things in terms of number, shape, texture, size, weight, color, and behavior.		
L2.	Read and write instructions to be followed or instructions which explain procedures.		
L3.	Ask clarifying questions.		
L4.	Explain problem-solving processes using verbal, pictorial, and written methods.		
L5.	Make and read simple graphs.		
L6.	Use objects and pictures to represent scientific and technological ideas.		
M.	IMPLICATIONS OF SCIENCE AND TECHNOLOGY Students will understand the historical, social, economic, environmental, and ethical implications of science and technology. Students will be able to:		
M1.	Describe how legends, stories, and scientific explanations are different ways in which people attempt to explain the world.		

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M2.	Describe at least two inventions, what they		
1412.	do, how they work, and how they have made life easier.		
М3.	Identify commonly used resources, their sources, and where waste products go.		
M4.	Demonstrate some practices for recycling and care of resources.		
M5.	Explain how their lives would be different without specific inventions or scientific knowledge.		